#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001275 Address: 333 Burma Road **Date Inspected:** 17-Jan-2008

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Fu Yu Hong No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG and Tower Mock-up

## **Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector performed 10 % of Ultrasonic testing (UT) to the Tower Mock-up 77 M, at the corner connection jointing the skin C and B. The areas tested (Y=0 thru 200 mm) appeared to be in accordance with contract documents. See ultrasonic testing report TL 6027 generated on this date.

The QA inspector performed 10 % UT to the bottom and side plates W shapes, weld joints BP-019-01-043, BP-020-01-044, SP-032-01-007 and SP-032-01-008. The QA inspector performed UT verifications with the 70° transducer and wedge; areas tested appeared to be in accordance with contract documents. See ultrasonic testing report TL 6027 generated on this date.

The QA inspector performed random dimensional verifications of the localized flatness with the 1 meter straight edge on the side panel SP-56B before heat straightening operations. The QA inspector found that the dimensions appeared to be in compliance with the contract documents.

The QA inspector had a conversation with ZPMC representatives Shen Xue Jun and Li Li Ming. The QA inspector asked if ZPMC already had completed the UT verifications on the 114 M Tower Mock-up. Mr. Shen Xue Jun said that they completed their verifications. The QA inspector asked when ZPMC completed their verifications. Mr. Shen Xue Jun said that six joints (skin A to B, skin E to A and skin D to E for the Upper and lower sections) were completed last Saturday while the QA inspector was performing UT verifications at the inside of the Tower Mock-up 114 M and 4 joints (skin C to D and skin D to C) were completed last Sunday. The QA inspector said that ZPMC had not informed the test schedule to the QA inspectors as required per contract

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

documents. Mr. Li Li Ming said that he forgot to call the QA inspectors on Sunday. The QA inspector asked, how Mr. Li Li Ming said that he performed UT verifications on Sunday if ZPMC was welding the corner connections by the skin plates C to D and C to B on Sunday (when the temperature was probably too high to perform UT verifications since the preheat around that location was approximately over 110 degree Celsius). ZPMC did not give a clear response to the QA inspector. Later, Mr. Li Li Ming relayed to the QA inspector that it was not Sunday; it was Monday morning when ZPMC performed the UT evaluations. The QA inspector had a conversation with Caltrans Task Leader Robert Cuellar. The QA inspector brought to the attention of Mr. Robert Cuellar the conversations above mentioned. Mr. Robert Cuellar said that an incident report needed to be issue because ZPMC did not informed Caltrans of ZPMC's ultrasonic testing schedules.

## **Summary of Conversations:**

As noted above.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer